

Amendments to the Drawings

The attached sheet of drawings includes changes to Figure 2. This sheet, which includes Figures 2 and 3, replaces the original drawing sheet including Figures 2 and 3.

Attachment: replacement sheet(s)

Remarks and Arguments

Applicant has carefully considered the Office Action dated September 21, 2005 and the references cited therein. Applicant respectfully requests reexamination and reconsideration of the application.

The Examiner has objected to Fig. 2 of the drawings because of a duplicate reference number 202. In response, Applicant proposes amendments to Fig. 2, including changing the reference number of the alarm speaker to 200 in order to address the objections to the drawings. No new matter is believed added to the application by way of the proposed amendments to the figures as set forth herein.

Claims 1-5, 7, 8, 11-13, 15-17, 19, 21-23, 26-29, 31-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over PGPub US 2003/0147216, Patel et al., hereafter Patel 1, in view of US Patent 6,170,561, O'Grady. In setting forth the rejection, examiners admits that Patel does not disclose a phase change material for absorbing heat from the airflow upon a failure associated with the heat exchanger. Instead, the examiner is relying on O'Grady for such teaching a phase change material and alleging that it would have been obvious to one of ordinary skill in the art at the time the invention is made to create a system for permitting orderly shutdown electronic components by incorporating the phase change material taught by O'Grady in the electronic component system disclosed by Patel.

Applicant traverses the rejection of the claims under 35 U.S.C. §103(a) on the grounds that the Examiner has failed to create a *prima facie* case of obviousness. In accordance with MPEP §2143.03, to establish a *prima facie* case of obviousness 1) the prior art reference (or references when combined) must teach or suggest *all* of the claim limitations; 2) there must be some suggestion or motivation to modify a reference or combine references; and 3) there must be a reasonable expectation of success.

Applicants respectfully assert that the Patel 1 and O'Grady references are not properly combinable. Specifically, there is no suggestion, teaching or motivation that their respective teachings be combined to form the disclosure, as alleged. Second, the combination of O'Grady and Patel 1 is improper because the proposed modification of O'Grady would change the principle of operation of the Patel 1 reference, and,

accordingly, there can be no reasonable expectation of success. Such a combination is prohibited by MPEP 2143.01 which specifically recites :

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)

The Examiner acknowledges that Patel 1 does not explicitly disclose phase change material but asserts that O'Grady discloses a back up cooling device for electronic components comprising a phase change material for serving heat from the airflow upon a cooling system failure associated with electronic component system. Applicant respectfully asserts that the Examiner has misinterpreted the O'Grady reference. O'Grady does not disclose disposing a phase change material within the airflow that has been drawn across the electronic components within a housing enclosure. O'Grady discloses, instead, disposing large quantities of phase change material along or at the ceiling of the room in which the electronic component system resides. Indeed the embodiments disclosed in O'Grady are specifically designed for attachment to the ceiling as either fixtures or as part of ceiling tiles (O'Grady, col. 3, lines 20-44) and are not sized or dimension for use with the present invention. Surely, the examiner can appreciate the more efficient cooling facilitated by disposing the phase change material within the airflow drawn across the electronic components versus simply disposing a quantity of the phase change material within the same room. In addition, how one reasonably skilled in the relevant art would integrate a ceiling tile or a 23 inch long cylinder of phase change material into an enclosure that already has significant space constrictions due to the number of the electronic retained their in and the predefined airflow pathways? The proposed modification of Patel 1 with the teachings of O'Grady would change the principle of operation of Patel 1, i.e. the enclosure of Patel 1 would no longer be able to accommodate the same arrangement of electronic components and airflow pathways due to the large dimensions of the O'Grady devices, possibly even requiring larger or additional fan/blower apparatus, and/or possible of electronic components from the enclosure. The O'Grady phase change

material devices are intended for exchanging heat with the relatively static airflow that accumulates at the ceiling of a room, not within the internal airflow patterns generated by fans or blowers within an enclosure, as in the present invention. Specifically, the introduction of a phase change material into the internal airflow pathways of an enclosure requires special placement and configurations to ensure airflow thereacross and therethrough.

In the present invention, the phase change material is disposed within the enclosure where the air flow across one or more electronic components is incident upon the phase change material. This aspect is disclosed in the subject specification particularly with regard to figures 1, 3-5. Note in Figure 1 of the subject application, the phase change material 130 is disposed within the airflow path created by the fans. In this manner, if the heat exchanger within the enclosure fails, the fan will continue to draw airflow across the phase change material as well as the electronic components, resulting in continued cooling of the electronic components. Conversely, the phase change material as disclosed in O'Grady, is disposed neither within the enclosure that houses the electronic components. Instead, the phase change material in O'Grady is disposed along the ceiling of the room in which such an enclosure resides.

Not standing the foregoing, claim 1 has been amended and now specifically recites a system comprising "a phase change material exposed to the airflow within the enclosure generated by the fan for absorbing heat from the airflow upon a failure associated with the heat exchanger" (claim 1, lines 8-10). Accordingly, Applicant respectfully traverses the rejection of claim 1 under 35 U.S.C. 103(a) on the grounds that the Examiner has not created a *prima facie* case of obviousness by failing to show: 1) how the prior art references teach or suggest *all* of the claim limitations; and 2) that there could be a reasonable expectation of success in the combination of Patel 1 and O'Grady.

Claims 2-14 include all of the limitations of claim 1 and are likewise believed patentable over the combined teachings of the Patel 1 and O'Grady references, for at least the same reasons as set forth above with regard to the rejection of claim 1, as well as for the merits of their own respective limitations. Specifically, regarding the rejection of claims 9, 10, and 34 under 35 U.S.C. 103(a) as being unpatentable over Patel in view

of O'Grady as applied above and further in view of US Patent 6,317,321, Fitch et al., hereafter Fitch, Applicant respectfully traverses such rejection. Fitch discloses incorporating an encapsulated phase change material directly into a semiconductor chip electronic package (Fitch, col. 2, line 46 through column 3, line 5). Fitch does not disclose applying the phase change material to an interior surface of the closure, is in the present invention. Claim 9 has been amended and now recites "the phase change material is in micro-encapsulated form that is embedded in a coating applied to one or more interior surfaces of the enclosure" (Claim 9, lines 1-3). Claims 10 and 34 have also been amended and now recite "one or more interior surfaces of the enclosure is coated with the phase change material, the phase change material encapsulated by a sealing coat" (Claim 10, lines 1-3; Claim 34, lines 1-3).

Claim 15 and 26 have been amended to include limitations similar to those recited in claim 1. Claim 15 now recites a method comprising "cooling the airflow using a phase change...the phase change material positioned within the enclosure and exposed to the airflow within the enclosure generated by the fan (claim 15, lines 6-8). Claim 26 now recites a cooling system comprising "a phase change material positioned within the enclosure in the airflow generated by the fan, the phase change material for absorbing heat from the airflow upon a failure in the cooling means" (claim 26, lines 7-9). Accordingly, claims 15 and 26 as well as their respective dependent claims, are likewise believed patentable over the combined teachings of the Patel 1 and O'Grady references, for at least the same reasons as set forth above with regard to the rejection of claim 1, as well as for the merits of their own respective limitations.

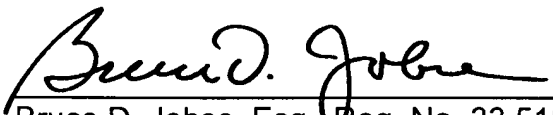
In light of the foregoing, Applicant respectfully asserts that the claims patentably distinguish over Patel 1 and O'Grady, whether considered singularly, in combination, or in light of any other references of record for the reasons set forth above.

The amendments to the claims as set forth herein, including the addition or cancellation of any claims, have been offered to advance this application to issue. None of the amendments made herein should be construed as an admission that the subject matter of the claims, as originally filed, is anticipated by or made obvious in light of any art of record whether considered singularly or in combinations. Applicant expressly reserves the right to pursue the originally filed claims in another co-pending

application without being prejudiced by any amendments, including cancellation of claims, made herein.

Applicant believes the claims are in allowable condition. A notice of allowance for this application is solicited earnestly. If the Examiner has any further questions regarding this amendment, he/she is invited to call Applicant's attorney at the number listed below. The Examiner is hereby authorized to charge any fees or credit any balances under 37 CFR §1.17, and 1.16 to Deposit Account No. 02-3038.

Respectfully submitted,



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